

Optical projection system and method for using an optical projection system.

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Optical projection system, comprising a projection lens, illumination optics in front of the projection lens showing a well-defined  $F\#$  number, and at least one light modulator comprising a plurality of reflective elements, wherein this system shows an optical axis and wherein said illumination optics allow to project light onto the light modulator and said light modulator allows to reflect the light in a controllable manner to different directions, such that ON state light cones, in which light is projected onto the projection lens, as well as OFF state light cones can be formed, wherein said projection lens shows an  $F\#$  number which is smaller than the  $F\#$  number of said illumination optics, and wherein the chief ray of the incident light at the light modulator is chosen such that the direction of the chief rays of the obtained ON state light cones differ from the corresponding optical axis, so as to obtain an improved contrast.

Figure 5.